

**Notice of Allowability**

Application No.

10/606,521

Examiner

Henry S. Hu

Applicant(s)

ALBERG, MICHELE J.

Art Unit

1713

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment of December 12, 2005.
2. ☒ The allowed claim(s) is/are 1-8, 10, 11 and 20-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in two telephone interviews with **Steven J. Hultquist (registration # 28,021, tel: 919 419-9350) on January 24, 2006** to amend improper Claims 1, 10 and 24 as well as to cancel non-elected claims (Claims 12-18 and 28 of Group II, and Claim 19 of Group III) as following:

### **CLAIMS**

**Claim 1** at line 3      please remove the word of "substantially"

**Claim 1** at line 4      please add the phrase of "by a factor greater than 10" to be after the phrase of "polytetrafluoroethylene material"

**Claim 10** at line 3      please remove the word of "substantially"

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**Claim 10** at line 3 please add the phrase of “by a factor greater than 10” to be after the word of “thereof”

**Claim 24** at line 1 please replace the phrase of “any of” with the phrase of “an article selected from the group consisting of”

**Claims 12-19 and 28** Please cancel Claims 12-19 and 28

***DETAILED ACTION***

2. This Office Action is in response to the faxed Amendment (in responding to Examiner’s non-final office action of RCE) filed on December 9, 2005. With the Applicants’ amendment, **Claims 1, 10, 12-18 and 20 were amended; Claim 9 was cancelled, while new Claims 21-27 were added.** To be more specific, parent **Claims 1 and 10** were amended to incorporate the extra two steps of fabricating article and then contacting with some substance; Claim 9 was cancelled since it the same as Claim 8. The Applicants allege that support for claim amendment and addition is detailed on page 12 of Remarks (see Table).

In view of Applicants’ argument on the improper restriction of Claim 20 (see page 8 of Remarks), previously restricted **Claim 20 is now rejoined with Group I.** In a close examination, the newly amended Claims 12-18 and 28 (now Group II) relate to subject matter of “**container**”, while Claim 19 (previously restricted Group III) relates to a specific method of

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determining a temperature and time to reduce particle count of PTFE film. **The restriction is thereby proper.**

With the above examiner's amendment, improper language such as "substantially" and "any of" on claims 1, 10 and 24 are corrected, while all non-elected claims (Group II of Claims 12-18 and 28; Group III of Claim 19) are cancelled. The examiner **accepts Applicants' drawing in ten sheets with Figures 1-10** filed on June 26, 2003 with this application. **Claims 1-8, 10-11 and 20-28 are now pending** with a total of three independent claims (Claim 1, Claim 10 and Claim 20). An action follows.

3. The 102(b) and/or 103(a) Claim rejections under Non-Final Office Action (for RCE) filed on August 9, 2005 are now removed for the reasons given in paragraphs 4-10 thereafter.

***Allowable Subject Matter***

4. Claims 1-8, 10-11 and 20-27 are allowed.

5. The following is an examiner's statement of reasons for allowance: The above Claims 1-8, 10-11 and 20-27 are allowed over the closest references:

6. The limitation of amended parent **Claim 1** of present invention relates to **a method comprising: (A) heating a polytetrafluoroethylene material to an elevated temperature; (B)**

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***maintaining said heating for a time sufficient to reduce a particle count character of the polytetrafluoroethylene material by a factor greater than 10; (C) fabricating a finished article comprising the polytetrafluoroethylene material from (B); and (D) contacting at least one surface of the finished article from C with a substance substantially free of contaminants.***

*Parent **Claim 10** relates to the similar method of Claim 1 but with a specific heating temperature, while parent **Claim 20** relates to a more specific method from Claim 10 with all the factors in detail. See other limitations of dependent **Claims 2-8, 11 and 21-27.***

7. In view of the Applicants' amendment and examiner's amendment, both two parent process **Claims 1 and 10** now carry a combination of at least three or four sequential steps: firstly to **heat a PTFE-containing material**, to **maintain the temperature at time enough so as to reduce particle count by a factor of greater than 10**, then to **fabricate** such obtained PTFE-containing material into an article, and finally to **contact** such obtained article with contaminant-free substance. It is noted the open language "comprising" is used. Other parent process **Claim 20** directly relates to a more specific method of Claim 10 since all the factors are in numbers.

In a close examination, current process involves **two extra steps** including step of fabricating the article and step of contacting when comparing it with original scope of limitation. Additionally, the step of heating PTFE material now requires continuing the procedure until the reduction of particle count being cut down to a factor of greater than 10.

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8. As discussed earlier in 102(b) rejection, **Bergman** only discloses a method for improved process of semiconductor wafers and the like by using heat to remove or volatilize the by-products from the wafer so that **a low particle count performance can be obtained**; no specific particle count such as “cut down to a factor of greater than 10” is mentioned, and no mention or suggestion is on step of fabricating the article and step of contacting at all. It is noted that a low particle count is not clear in wording; such a level can be actually achieved by any routine preparation work-up on PTFE polymers.

With respect to other 102(b)/103(a) rejection, **Derbyshire** has only disclosed a method for producing a grindable material by **treating polytetrafluoroethylene with irradiation, heat and time at temperature** being approximately 50-150 Mrads, 150-600 °F for at least about One-half hour (abstract, line 1-9; column 2, line 12-31). By doing so, sintered PTFE can be nondestructively degraded so as to be grindable to fine powders having low average particle size and high melt flow characteristics. In a close examination, particle count of polytetrafluoroethylenes may be reduced since a heating is involved. However, no specific particle count such as “cut down to a factor of greater than 10” is mentioned, and no mention or suggestion is on step of fabricating the article and step of contacting at all. It is noted that heating with irradiation may cause other **degradation chemistry** into smaller powdery particle, the claimed level on particle count “cut down to a factor of greater than 10” may be difficult to reach or impossible in nature.

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9. In a close examination of the three references cited as X references in the **search report for Applicants' PCT/US04/20024 (now WO 2005/003189 A1)**, the examiner confirms that **US 5,377,708 A to Bergman et al.**, **US 3,432,511 A to Reiling**, and **US 4,220,511 A to Derbyshire** all fail to teach or fairly suggest such a combination of limitations. The key point is that all citations as X references are based on original claims.

It is noted by this examiner that reaching such a low and specific level of particle count on PTFE-containing material is an achievement; while applying it to fabricate into an article so as to be contacted with contaminant-free substance is an extra achievement.

Additionally, the present invention has shown in examples along with some comparative examples for making such a PTFE-containing article (see pages 4-10 along with its **Figures 1-10**). Therefore, all the above-mentioned references, in combination or alone, does not teach or fairly suggest the limitations of present invention.

10. After further examination and search, the examiner found the following prior art did not teach the claimed limitation:

**US Patent No. 5,597,873 to Chambers et al.** only discloses a method of surface-crosslinking on a super-absorbent polymer composition by heating a based polymer, which is homogeneously blended with a crosslinker solution (column 4, line 12-38; column 5, line 6-29). However, **no PTFE polymer is involved**. In a close examination, particle count of polymers

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may be reduced since a heating is involved. However, **no specific particle count such as “cut down to a factor of greater than 10” is mentioned, and no mention or suggestion is on step of fabricating the article and step of contacting at all.** Therefore, the claimed method for lowering particle count and then to fabricate an article is not disclosed.

11. The key issue, regarding making a PTFE-containing article through at least three or four sequential steps to heat a PTFE-containing material, to maintain the temperature at time enough so as to reduce particle count by a factor of greater than 10, to fabricate such obtained PTFE-containing material into an article, and finally to contact such obtained article with contaminant-free substance, cannot be overcome by any or the combination of the above references, therefore, the present invention is novel.

12. As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the above references to render the present invention anticipated or obvious to one of the ordinary skill in the art. Therefore, three independent process **Claims 1, 10 and 20** are allowed for the reason listed above. Since the prior art of record fails to teach the present invention, the remaining pending dependent **Claims 2-8, 11 and 21-27** are passed to issue.

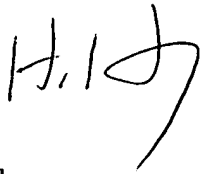
13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu** whose telephone number is (571) 272-1103. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The **fax** number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry S. Hu

Patent Examiner, Art Unit 1713, USPTO

February 1, 2006



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